

# Quick User's Guide

**VIA *KM400* mainboard  
for AMD Socket A processor**

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# 1. Specification

## ● Processor Support

- ◆ Supports 462-pin Socket A for AMD Athlon XP processors with 266/333MHz Front Side Bus

## ● Chipset

- ◆ VIA KM400 + VT8237 Chipset
  - with VIA Unichrome Graphics core

## ● Main Memory

- ◆ [Two](#) 184-pin DDR DIMM sockets for PC2100/PC2700 (DDR266/333) DIMMs
- ◆ Supports up to [2GB](#) memory size

## ● BIOS

- ◆ Flash EEPROM with Award BIOS
  - ACPI v2.0 compliant
  - SMBIOS (System Management BIOS) v2.2 compliant

## ● LAN

- ◆ Integrates 10/100Mbps Fast Ethernet controller with onboard [VIA 6103 PHY](#) LAN

## ● Legacy IO Support

- ◆ [Winbond W83697HF](#) LPC IO controller with floppy, printer, serial and CIR/SIR interface

## ● Audio

- ◆ [Six](#) channel audio with analog and digital output using [Realtek ALC655](#) AC'97 CODEC
  - AC'97 v2.3 compliant
  - Supports CD-In, Aux-In
  - Supports Line-out and Mic-In for front panel
  - Supports automatic "jack-sensing"
  - Rear panel audio jacks configuration:

Audio Jack Color	2 channel	6 channel
Light Blue	Line-in	Rear stereo-out
Lime	Line-out	Front stereo-out
Pink	Mic-in	Center&Subwoofer

## ● Expansion Slots

- ◆ [One](#) AGP v3.0 compliant slot supporting 1.5v [8X](#) AGP card
- ◆ [Three](#) PCI v2.2 compliant slots with Bus Master support
- ◆ [One](#) CNR slot

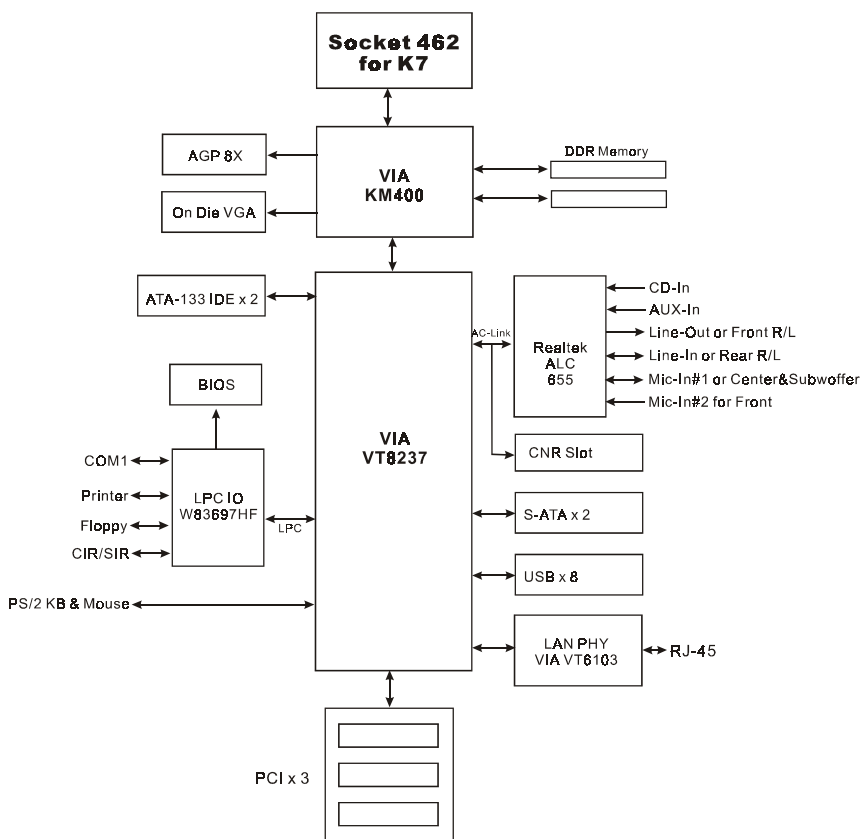
## Other Features

- ♦ Magic Health – a BIOS H/W monitoring utility for voltage, temperature and fan-speed sensing displayed during POST
- ♦ EZ Boot – A simple shortcut to select the boot device, e.g. hard drive, CD-ROM or floppy without entering CMOS setup
- ♦ Supports exclusive KBPO (Keyboard Power On) function

## Form Factor

- ♦ 244mm x 220 mm Micro-ATX size

## 1.2 Block Diagram



## 2. Setting up the mainbaord

Before assembling the mainboard into the PC case we recommend you to perform.

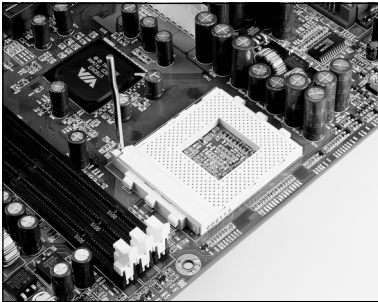
1. CPU Installation
2. DDR Memory Insertion

After the mainboard is fitted into the case, you may

3. Install Add-on VGA Or PCI cards
4. Connect the internal cables and wires
5. Connect your external peripherals to the rear I/O port

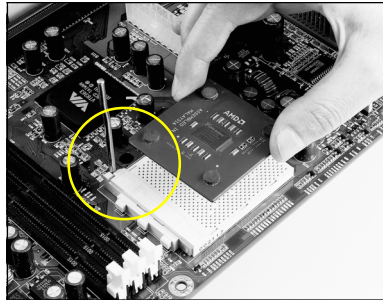
## 3. Installation

### 3.1 CPU Installation



#### Step 1

Open the socket by raising the actuation lever.

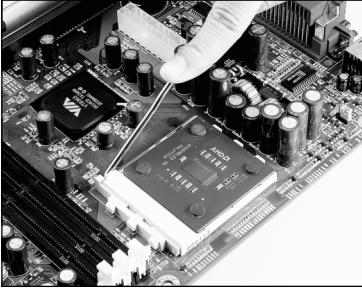


#### Step 2

Align pin 1 on the CPU with pin 1 on the CPU socket as shown above. Insert the CPU and make sure it is fully inserted into the socket.

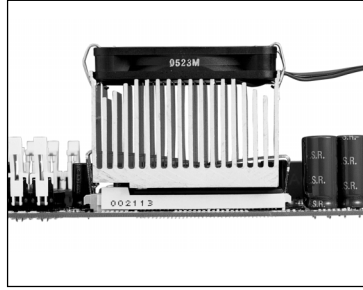


The CPU is keyed to prevent incorrect insertion, do not force the CPU into the socket. If it does not go in easily, check for mis-orientation.



### Step 3

Close the socket by lowering and locking the actuation lever.



### Step 4

Install the cooling fan assembly.



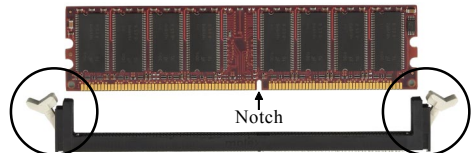
- Installing without a cooling fan will cause CPU overheat and damage the CPU.
- Apply heatsink thermal compound/paste to the CPU.

## 3.2 DDR Memory Insertion

The mainboard accommodates two PC2100/PC2700 184-pin DIMMs (Dual In-line Memory Modules):

- Supports up to 2.0GB of 266/333MHz DDR SDRAM.
- Supports unbuffered non-ECC DIMMs.
- DDR SDRAM supports 64, 128, 256, 512MB and 1GB DIMM modules.
- Supports DRAM configurations defined in the JEDEC DDR DIMM specification.

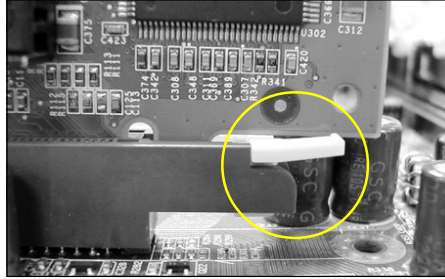
- ① To install, align the notch on the DIMM module with the connector.
- ② Press straight down as shown in the figure until the white clips close and the module fits tightly into the DIMM socket.



### 3.3 VGA and PCI card installation

To install a VGA card into the AGP slot or a PCI expansion card:

1. Remove the bracket (on the PC case) for the slot you intend to use.
2. Firmly press down the card into the slot until it is completely seated. For an AGP card ensure the AGP slot clicker is locked as shown in the picture below.

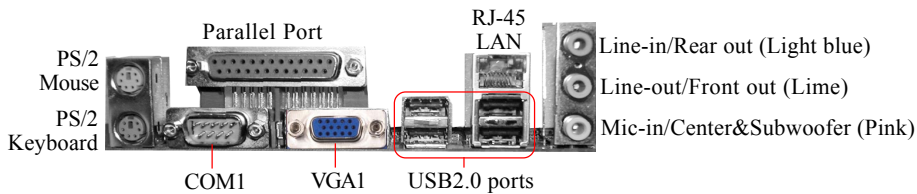


3. Secure the card's bracket to the PC case with a screw.

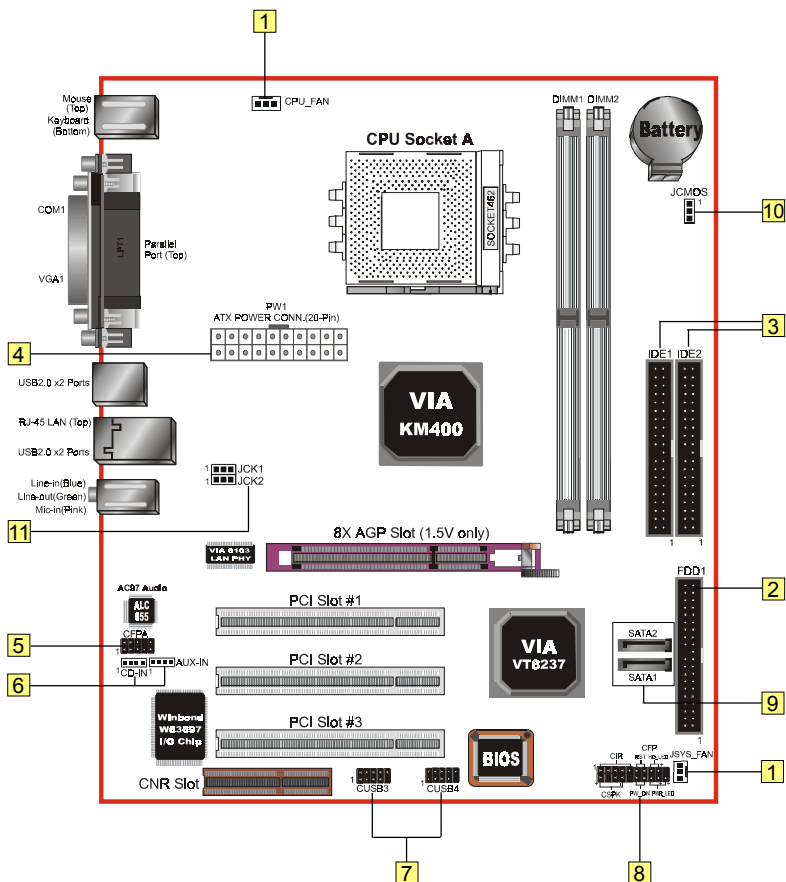


The AGP slot supports only newer VGA cards with 1.5V specifications.

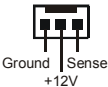




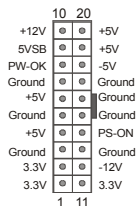
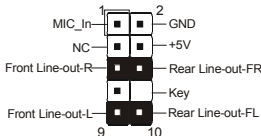

### 3.4 Rear IO Port



### 3.5 Internal Connectors





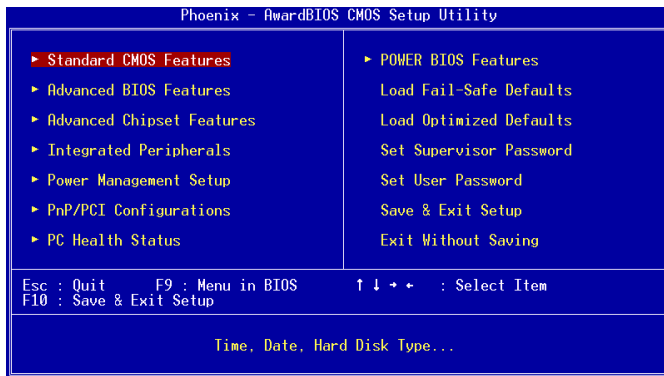
Connectors	Figure	Discriptions
<b>1</b> JCPU_FAN JSYS_FAN		<b>CPU / System Fan Power Connectors</b> <b>JCPU_FAN:</b> The CPU must be kept cool by using a heatsink with fan assembly. <b>JSYS_FAN:</b> Use this connector if you are installing an additional fan in the unit.
<b>2</b> FDD		<b>Floppy Drive Connector</b>
<b>3</b> IDE1 Primary IDE  IDE2 Secondary IDE	 	<b>Primary/Secondary IDE Connector</b> Connects to the IDE device, i.e. HDD and CD-ROM device. <div>  When using two IDE drives on the same connector, one must be set to Master mode and the other to Slave mode. Refer to your disk drive user's manual for details.         </div>
<b>4</b> PW1		<b>PW1: 20-pin ATX Power Connector</b> The plugs of the power cables are designed to fit in only one orientation.
<b>5</b> CFPA		<b>CFPA: Front Panel Audio Connector</b> This connector is used only if the speaker and microphone needs to be plugged at the front of the PC case. Otherwise, leave the jumpers at the default position.
<b>6</b> CD-IN AUX-IN		<b>CD-IN/AUX-IN: CD Audio-in connectors</b> These connectors are used to receive audio form a CD-ROM drive, TV tuner or MPEG card.

Connectors	Figure	Discriptions
<b>7</b> CUSB3 CUSB4		<p>CUSB3/CUSB4: Four USB2.0 header</p> <p>This mainboard includes 4 additional onboard USB ports.</p> <p>To use these additional USB ports, a USB bracket is required. Please contact your retailer for details.</p>
<b>8</b> CFP		<p>CFP: Case Front Panel Connector</p> <ul style="list-style-type: none"> <li>♦ HD_LED This LED indicates hard drive activity.</li> <li>♦ PWR_LED Connects to the power indicator on the PC case.</li> <li>♦ RST Connects to the RESET switch on the PC case.</li> <li>♦ PW_ON Connects to the Power button on the PC case, to turn on the system. To turn off the system, press the power button for 4 seconds.</li> </ul>
CIR		<p>CIR: IR connector</p> <p>For connection to an IrDA receiver unit.</p>
CSPK		<p>CSPK: Speaker</p> <p>Connects to the case's speaker for PC beeps.</p>
<b>9</b> SATA1 SATA2		<p>SATA1 / SATA2: Two Serial ATA Connectors</p> <p>These connectors enable you to connect Serial ATA devices that conform to the Serial ATA specification.</p>
<b>10</b> JCMOS	<p>Settings: 1-2: Normal (Default) 2-3: Clear CMOS</p>	<p>JCMOS: Clear CMOS data Jumper</p> <p>This resets the BIOS CMOS data back to the factory default values. Recommend to leave at Normal (default) position.</p>
<b>11</b> JCK1 JCK2	<p>JCK1 JCK2 Settings: 1-2 1-2 100MHz (Default) 2-3 1-2 133MHz 2-3 2-3 166MHz</p>	<p>JCK1/JCK2: CPU FSB Select Jumper</p> <p>This jumper is used to select the front side bus of the CPU installed on the mainboard.</p>

## 4. BIOS

### BIOS Setup

When you start up the computer for the first time you need to enter the BIOS CMOS Setup Utility. Power on the computer and press <Del> key during POST (Power On Self Test). The BIOS CMOS SETUP UTILITY opens as shown below:



< CMOS Setup Utility>

Select and enter "Load Optimized Defaults" page. This page loads the factory settings for optimal system performance. Follow the simple on-screen instructions to complete this procedure. Press "ESC" to exit and select "Save & Exit Setup" to continue to boot.

**Note :** For more information regarding BIOS settings refer to the complete manual in the bundled CD.

## 5. Driver Installation

Once the operating system has been installed, you need to install the drivers for the mainboard.



Insert the bundled CD into the CD-ROM and the main menu screen will appear. The main menu displays links to the supported drivers, utilities and software.

### ► **Method 1**

This item installs all drivers automatically.

### ► **Method 2**

This item allows you to install the drivers selectively.

**Step 1 :** Click “**VIA SERIES 4\_IN\_1 Driver**” to install chipset driver.

**Step 2 :** Click “**GRAPHICS Driver**” to install onboard graphics driver.

**Step 3 :** Click “**AC'97 AUDIO Driver**” to install audio driver.

**Step 4 :** Click “**VIA LAN Driver**” to install LAN driver.

**Step 5 :** Click “**USB V2.0 Driver**” to install USB 2.0 driver.

**Step 6 :** Click “**VIA SATA Driver**” to install Serial ATA driver.

## 6. Update BIOS

Download the xxxxx.EXE file corresponding to your model from our website to an empty directory on your hard disk or floppy. Run the downloaded xxxxx.EXE file and it will self extract. Copy these extracted files to a bootable floppy disk.

Note: The floppy disk should contain NO device drivers or other programs.

1. Type "A:\AWDFLASH and press <Enter> Key.
2. You will see the following setup screen.
3. Please key in the xxxxx.bin BIOS file name.
4. If you want to save the previous BIOS data to the diskette, please key in [Y], otherwise please key in [N].

```

FLASH MEMORY WRITER V7.88
(C)Award Software 2000 All Rights Reserved
For XXXX-H83627-6A69LPA9C-0  DATE: 05/11/2000
Flash type - 
File Name to Program : 
Error Message:

```

```

FLASH MEMORY WRITER V7.88
(C)Award Software 2000 All Rights Reserved
For XXXX-H83627-6A69LPA9C-0  DATE: 05/11/2000
Flash Type - XXXXX E82802AB /3.3V
File Name to Program : xxxxx.bin
Error Message: Do You Want To Save Bios (Y/N)

```

5. Key in File Name to save previous BIOS to file.
6. To confirm and proceed, please key in [Y] to start the programming.

```

FLASH MEMORY WRITER V7.88
(C)Award Software 2000 All Rights Reserved
For XXXX-H83627-6A69LPA9C-0  DATE: 05/11/2000
Flash Type - XXXXX E82802AB /3.3V
File Name to Program : xxxxx.bin
File Name to Save : xxxxx.bin
Error Message:

```

```

FLASH MEMORY WRITER V7.88
(C)Award Software 2000 All Rights Reserved
For XXXX-H83627-6A69LPA9C-0  DATE: 05/11/2000
Flash Type - XXXXX E82802AB /3.3V
File Name to Program : xxxxx.
Checksum : 268EH
File Name to Save : xxxxx.
Error Message: Are you sure to program (y/n)

```

7. The BIOS update is finished.

```

FLASH MEMORY WRITER V7.88
(C)Award Software 2000 All Rights Reserved
For XXXX-H83627-6A69LPA9C-0  DATE: 05/11/2000
Flash type - XXXXX E82802AB /3.3V
File Name to Program : xxxxx.
Checksum : 4804H
Verifying Flash Memory - 7FE00 OK
Write OK No Update Write Fail
F1: Reset F10: Exit

```

[illegible]